REMARKS/ARGUMENTS

The Examiner has rejected claims 1 to 30 under 35 U.S.C. 103(a) as being unpatentable over Persson (US Patent No. 5,487,174) in view of Zimmermann et al. (US Patent No. 6,804,213).

Claims 1 to 30 consist of independent method claims 1 and 16 and independent article of manufacture claims 9 and 24, with claim 9 reciting the method steps of claim 1 and claim 24 reciting the method steps of claim 16. Moreover, claim 8, while directed to a base station controller, would be considered to include the method steps of claim 1 upon which it is dependent and, similarly, claim 23 would be considered to include the method steps of claim 16. Thus, if claims 1 and 16 are patentable, claims 8, 9, 23 and 24 must also be patentable.

It is noted that under Paragraph G on page 5 of the "Detailed Action" the Examiner has related claim 24 to claim 1 but, as indicated above, claim 24 corresponds to claim 16 and claim 9, in fact, corresponds to claim 1.

Turning to the rejection of claims 1 (and 9) and 16 as discussed in paragraph A on page 2 of the "Detailed Action", the Examiner asserts that "[t]he [mobile switching center] MSC also monitors traffic channels and is capable of allocating either downlink or uplink traffic channels to respective base stations (column 18, lines 4-23 [of Persson]). Therefore rendering the determination of the predominant direction of traffic." However, the section of Persson referred to by the Examiner, namely column 18, lines 4-23, does not provide any support for the Examiner's assertion. Column 18, lines 4-23 read:

> "If the broadcasted information indicates that the base station B1 belongs to another location area other than the one where the mobile station is previously registered, the mobile station must make a new registration. The mobile station then transmits an access message to base station B2 on the control channel of B2, indicating that the mobile station is receiving the control channel from base station B1. This message is forwarded by the base station B2 to MSC. The MSC

checks if there are any free traffic channels at base station B1 and B2. The MSC may check base station B1 first and subsequently check base station B2 or vice versa. If such traffic channels are available the MSC first allocates a downlink traffic channel at base station B1 and subsequently an uplink traffic channel at base station B2. Alternatively the MSC may first allocate an uplink traffic channel at base station B2 and subsequently a downlink traffic channel at base station B1. The allocation of downlink and uplink channels may also be made simultaneously by deciding upon a pair of traffic channels."

Moreover, not only does this section of Persson fail to disclose the feature that the Examiner asserts that it does, no suggestion is made anywhere in either Persson or Zimmermann et al. of "determining a predominant direction of traffic with respect to the terminal", as recited by claims 1 and 9. Without determining the predominant direction of traffic with respect to the terminal, the base station selection process recited by claims 1 and 9 is not possible. Once the predominant direction of traffic is determined, claims 1 and 9 specify that "if the predominant direction of traffic is in an uplink direction, selecting at least one optimum base station from the uplink candidate set; and if the predominant direction of traffic is in a downlink direction, selecting at least one optimum base station from the downlink candidate set." Which means that in the case where the uplink and the downlink are to be handled by a single basestation, a basestation will be selected that is suitable for the predominant direction of traffic. The base station selection process recited by Zimmermann et al. does not consider asymmetric channel traffic (i.e. either the uplink or downlink traffic is predominant) and channel selection is based on the channel with the lowest interference measurement.

The Examiner has conceded "Persson does not explicitly disclose storing an uplink and downlink candidate list of base stations and selecting at least one optimum base station from the candidate list for both directions of traffic". In essence, the Examiner is conceding that all of the steps of claim 16 and claim 24 are not explicitly disclosed in Persson and a great many of the steps of claims 1 and 9 are not disclosed in Persson. The Examiner relies on Zimmermann et al. to provide these missing features. However, Zimmermann et al. is directed to a cordless

telephone system rather than a cellular mobile communication system according to Persson and it is submitted that the two arts are non-analogous. It is particularly noted that the Examiner has argued that the channel selection method described in Zimmermann et al. is equivalent to the base station selection method of the present invention. However, the channels described by Zimmermann et al. cannot function as both uplink and downlink channels simultaneously; therefore there can be no overlap between the channels in the uplink channel set and the downlink channel set, whereas the uplink candidate set and the downlink candidate set of the present invention may contain common base stations. Therefore, the Examiner's analogy is not accurate and simply implementing the channel selection method of Zimmermann et al. in the MSC recited by Persson would be insufficient to arrive at the present invention.

It is submitted that the three criteria to establish a *prima facie* case of obviousness have not been met. Firstly, there is no suggestion or motivation in the references or in the knowledge generally available to one of ordinary skill in the art to modify Persson or to combine Zimmermann et al. with Persson. Second, there is no reasonable expectation of succeeding in arriving at the claimed invention. Thirdly, the claimed references together do not teach or suggest all of the claim limitations.

For the above reasons, it is respectfully submitted that independent claims 1, 9, 16 and 24 distinguish clearly and patentably over the cited art and, as indicated above, claims 8 and 23 also distinguish for at least the same reasons. The remaining claims, all being dependent, are patentable for the same reasons the independent claims are.

Furthermore, claims 7, 15, 22 and 30 of the present invention describe a base station selection method that provides load balancing. Claims 7, 15, 22 and 30 specify "determining a current load of each base station in the uplink candidate set; and selecting from the uplink candidate set at least one optimum base station that has the lowest current load". Claims 7, 15, 22 and 30 describe the same process for selecting an optimum downlink base station. By selecting a base station from a list of candidate base stations based on which base station is currently handling the least load, traffic is distributed more evenly amongst the base stations.

The system and method recited by Zimmermann et al. only considers a single base station or "fixed part" with multiple channels (see Figure 4 of Zimmermann et al.), therefore there is no suggestion of load balancing in the teachings of Zimmermann et al. The Examiner has argued that "[a]lthough Persson discloses that downlink/uplink base station are selected based on signals received strongest at the mobile station, one of ordinary skill in the art would recognize that the base station with strongest received signals at the mobile station would have the lowest current load". However, there is no support for this assertion in Zimmermann et al., as load has nothing to do with the strength of received signals, and as stated above, selecting uplink/downlink base stations based on signal strength alone does not provide the load balancing feature of claims 7, 15, 22 and 30.

For these additional reasons, claims 7, 15, 22 and 30 distinguish patentably.

The Examiner is respectfully requested to reconsider and withdraw his rejection of the claims.

In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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Date: May 10, 2006

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